It is Claimed:

1. A method for inhibiting melanocyte cells, comprising:

administering to the melanocytes a melanocortin receptor antagonist, the antagonist having about seven amino acid residues and being in an amount effective at concentrations of less than 250 nM to block the actions of α-melanocyte stimulating hormone on *Xenopus* laevis melanophores or on mammalian cells transfected with melanocortin receptors.

2. The method as in claim 1 wherein the antagonist is a peptide in an emulsion adapted to enhance bioavailability thereof.

3. A method of treating melanoma, comprising:

administering to a subject in need thereof an effective amount of a melanocortin receptor antagonist selective for the MCR-1 receptor, the antagonist being selected from the group consisting of peptide (a), (b), (c), and (d), wherein:

6 7 8 9 10 11 12

(a) is Xaa-Arg-Xaa-Arg-Pro-Xaa-Xaa, where Xaa^6 is Arg or D-Arg, Ala or D-Ala, Xaa^8 is Ile or Ala, Xaa^{11} is Lys or D-Lys, and Xaa^{12} is amidated Leu, D-Leu, or Ala, and the Arg in the ninth position may be in the D-Arg stereoconfiguration, and wherein the peptide may have an acylated amino terminus, an anisoylated N-terminus, and/or have an amidated carboxyl terminus;

(b) is a mystixin having the sequence T_N-A_1-A_2-A_3-A_4-A_5-A_6-T_C, where T_N is an amino terminal portion having a molecular weight less than about 600 daltons and is selected to convey resistance against

enzymatic degradation; A_1 is D- or L-arginine and D-lysine; A_2 is lysine or arginine; A_3 is leucine or isoleucine; A_4 is leucine, isoleucine, methionine, or valine; A_5 is methoxybenzoyl-ethyl-Gly, methoxy-benzoylmethyl-D-Ala, Tyr(Me), Trp, Tyr, Leu, Lys, Arg, 4' substituted Phe (4'F, 4'I, 4'Cl, 4'NO_2), D-His, D-Lys, D-Arg, D-Leu, D-Pro, or D-Trp; A_6 is isoleucine; with the proviso that not all of the A_1-A_6 are in the L-configuration; and T_c is isoleucineamide, D-leucineamide, D-valineamide;

(c) is a compound having the sequence Arg-Tyr-Tyr-Arg-Trp/D-Trp-Lys with the modifications as described in (a); or,

(d) is dynorphin A(1-13)-amide.

4. The method as in claim 3 wherein the peptide is acetylated at the amino terminus.

5. The method as in claim 3 wherein the peptide is amidated at the C-terminus.

6. The method as in claim 3 wherein the peptide is anisoylated at the N-terminus.

7. The method as in claim 3 wherein the peptide administered is encapsulated in liposomes.

8. The method as in claim 3 wherein the peptide is p-anisoyl-[D-$Arg^{6,9}$, D-Lys^{11}, D-Leu^{12}] dynorphin A(6-12)-NH_2.

9. A method of modulating the activity of a melanocortin receptor, comprising:

administering an *agouti*-related protein fragment (83-132).

10. The method as in claim 9 wherein the *agouti*-related protein fragment is amidated.